

## Engaging and Recruiting Underserved Populations of Rural Victorian Women for Breast Health

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### Abstract

**Introduction:** Evidence has indicated that there is little difference in knowledge between rural and urban women on the awareness of breast cancer risk and incidence, however, some studies have demonstrated that rural women are likely to report greater difficulty accessing services and treatment and are less likely to participate in regular breast care practice, such as breast self-examination or receiving a mammogram. Furthermore, evidence suggests that with an effective health behavioural change strategy, positive breast care practice can be achieved.

**Method:** With this in mind, we developed an initiative which employed a suite of strategies to improve access to breast screening and breast care programs for rural women and implemented this initiative across three different communities. We compared the demand that was created in each locale and the subsequent recruitment of rural women to the initiative, including the number of women attending mammography.

**Results:** Case A demonstrated the strength of the initial recruitment strategies in the context that these were rigorously and consistently applied which contributed to successful demand creation and subsequent recruitment of women to the program. Where any of these elements was not fully addressed, outcomes were adversely affected as demonstrated in Case B, where reduced capacity for recruitment support directly impacted the number of participants recruited and Case C, where failure to identify a champion, together with the collapse of the media program, resulted in no demand.

**Conclusion:** A clearly articulated and funded rural strategy for breast cancer detection is critical to the maintenance of breast health for rural women. Independent of access in metropolitan areas, maintaining resources and specific initiatives for recruiting under-screened rural and remote women is crucial. Research about the effectiveness and sustainability of population-based breast screening programs should continue, but should also include a clear, specific and stand-alone rural focus.

### Introduction

In the context of ongoing debate over the cost effectiveness of breast cancer screening, the issue of addressing the needs of rural and remote women requires more detailed consideration. This is especially so for traditionally underserved and hard to reach populations [1,2].

It is well documented that women experience common barriers to breast screening, including: the process of having a mammogram and the associated pain, embarrassment and discomfort; limited understanding and appreciation of the benefits of screening, including low awareness of age as a risk factor for breast cancer, and factors related to the availability, accessibility and acceptability of a screening program [3]. In general, women from rural and remote areas experience a greater range of barriers to services, including reduced choice, greater out-of-pocket costs for accessing alternatives, heightened levels of embarrassment and a perceived lack of confidentiality [4,5]. Furthermore, if these women are also of Aboriginal and Torres Strait Islander or culturally and linguistically diverse backgrounds, the barriers represent even greater challenges [5]. Evidence also suggests that a lower likelihood of referral to screening programs by general practitioners in rural areas may be a factor in lower overall screening rates [6].

Although internationally evidence has shown that there are few differences in knowledge between rural and urban women on the awareness of breast cancer risk and incidence, many studies have demonstrated that rural women in developing countries are likely to report difficulty accessing breast care services and treatment, noting reasons such as greater distances, and are less likely to participate in regular breast care practice, such as breast self-examination or receiving a mammogram [6-8].

Further evidence suggests that effective health behaviour change including positive breast care practice can be achieved [8]. In a study of rural women by Vivilaki and colleagues, it was found that, after receiving information about personal screening experiences and observing the actions and attitudes of their peers in relation to health screening behaviour, the women showed an increased likelihood of modelling and imitation of positive health choices [7].

To improve access to breast care choices for rural women in Victoria we investigated the effectiveness of recruitment strategies aimed at increasing breast care awareness and service access.

### Method

The title 'Breast Screening Program' (BSP) is given to the initiative which employed a suite of strategies to improve access to breast screening for rural women. A small working party – with representatives from funded organisations within a larger network-planned events to engage

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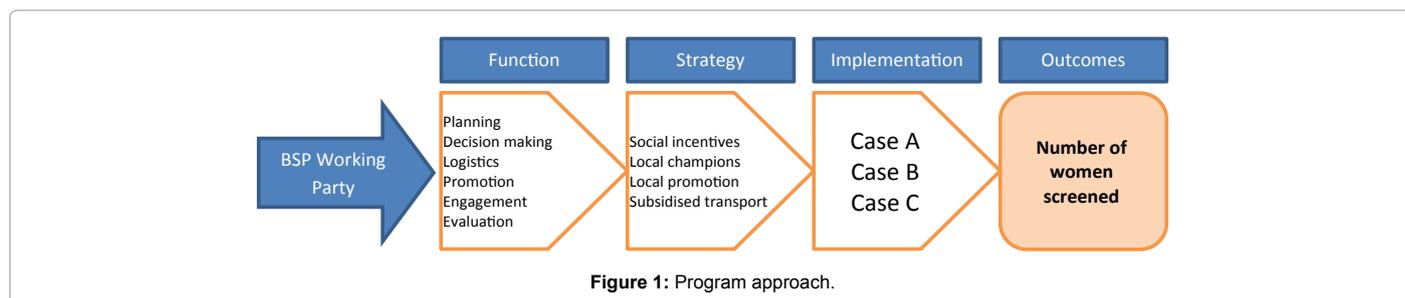


Figure 1: Program approach.

and transport women to breast cancer screening. The events offered added incentives such as provision of lunch and gifts and was promoted within a ‘relaxed social outing.’ The study approach is summarized in (Figure 1).

Using a comparative case study approach for planning and evaluation, eligible women from three locations in rural Victoria were targeted for recruitment, with a focus on hard to reach and underserved groups. Over an 18 month period, we applied a case description and comparison approach to analyse recruitment and awareness raising strategies. Specifically, the cases were compared across parameters including local capacity, media use, promotional material development, local enabling factors, networking and resource mobilisation. For the purpose of this paper, the three communities have been referred to as Case A, Case B, and Case C.

## Case Descriptions

### Case A

Case A was chosen due to its low state screening rates when compared to the rest of its region. The date chosen was based on existing community opportunities, such as capitalising on the momentum of local ‘Mother’s Day’ activities to maximise promotion and therefore potential recruitment.

The working party agreed on using ‘local champions,’ people who knew the local community well, to support engagement of participants. The recruitment upper target was 24 women. The logistics of scheduling each participant to receive their mammogram and be part of the social outing were considered. Cervical screening was also offered as an elective opportunity to participants, and was included in the scheduling considerations. The working party created promotional material in the form of a flyer: an invitation to women in the area to come on a social outing, meet others, enjoy lunch together, receive incentives and health information, and have a mammogram (with cervical screening also offered). Dissemination occurred via email networks, media promotion and word of mouth.

### Case B

Case B locations also had low breast screening rates compared with the state average. All previous approaches and strategies used for Case A were employed. The previous experience in Case A with scheduling reduced the administrative burden for this event. In addition, the target number for recruitment was set at twelve, to mitigate any screening facility schedule congestion.

As with Case A, recruitment relied heavily on local champion support for promotion and a community presence that was to be consistent, repetitive and personal; whilst local community publications supported the campaign for recruitment.

### Case C

Case C was chosen with an identified potential for local influence and recruitment by the community health service. As with the previous two cases, the same strategies were employed.

The promotional flyer used in Case A and Case B settings was adapted in Case C to include more clinical language. Dissemination of information for the event was also through the local town publications and the school newsletter.

## Results

The three communities in which women were recruited were similar in number of women residents (<550), median population age (range 41-54), distance from a regional town (range 66-86 km), and each had similar demands for services across the catchment. All three rural communities had limited access to basic and specialised breast health services.

All case studies employed similar strategies, to a greater or lesser extent (Table 1). Case A maximised the opportunity to have local community champions at the centre of promotion and personal recruitment. Case B and C lacked the same local connections and capacity for promotion.

In Case A, two local champions were identified: the first, a member of the project working party who was employed by the rural hospital; the second was a well-known community representative. Each champion had similar reach geographically, recruiting participants predominately from the one locality. Having a member of the working party as a local champion enhanced recruitment as they maximised every relationship-building and networking opportunity to optimise the effectiveness of the promotional activities.

In Case A, initial planning for screening scheduling proved difficult due to a preliminary estimate of thirty participants. Included in the planning challenges were: the capacity of the screening organisation to accommodate all participants; the availability of radiographers and support staff; and the logistics of integrating cervical screening where applicable. However, as recruitment resulted in eleven participants, coordination of all logistics, including transport and the day’s events was less complex than expected. Following screening, participants went for lunch and socialising, before enjoying an hour of shopping and a short massage.

In Case B, one of the Case A champions also encouraged recruitment, as her community status and personal relationships extended to both settings. This enabled recruitment to extend beyond professional networks into zones of direct personal influence. In Case B however, for unrelated organisational reasons, the project working party had reduced capacity to support the advocacy efforts of the champions. Media use in Case B was less consistent and less frequent, resulting in

	Location A	Location B	Location C
<b>Strategy</b>			
Implement a breast screening awareness program, recruiting women from rural settings specifically targeted with low screening rates.		✓	✓
<b>Inputs</b>			
· Capacity of project team		✓	✓
· Create promotional material (in partnership, including support from BSV)	✓	✓	Created own, inclusion of clinical wording, e.g. 'mammogram'
· Capitalise on community movement – <i>Mother's Day</i> – timing an advantage	✓	✓	-
· Flood small media in a consistent, repetitive, time-framed manner		✓	✓
· Utilise local health organisations' relationships with their local community to 'spread the word' (e.g. amongst groups, when in clinical practice, in general conversation, through own advertising opportunities)	✓	✓	✓
· Dissemination of promotional material in local businesses	✓	✓	✓
· Funding support available		✓	✓
· Resources coordinated in timely manner: transport, fuel, driver		✓	✓
· Committed team organising and utilising opportunity	✓	✓	✓
· Local advocate – local strategic and robust promotion on behalf of project team	✓	✓	-
· Local champion – clearly defined role and responsibilities to help articulate message	✓	✓	-
<b>Outputs</b>			
Small media campaign (newsletters, local print media, bulletin boards)		✓	✓
Local promotion (personal engagement)	✓	✓	✓
Local champion teams (personal recruitment)	✓	✓	-
Community Development Framework	✓	✓	✓
<b>Outcomes</b>			
<b>Participants attending</b>	<b>11</b>	<b>6</b>	

✓ Achieved ✓ Partially achieved - Not achieved

**Table 1:** Comparative analysis by location of outcomes achieved.

weakened local promotion and reduced local organisational capacity to build relationships and encourage recruitment. The outcome for recruitment from Case B was 6 participants. Case C strategies mirrored those employed in the previous cases with the local champion employed by a community-based organisation which resulted in a partnership with the community health service for promotion and recruitment of the BSP. However in Case C, local media was used less regularly, and in addition, the local community health service adapted the original promotional flyer, shifting the focus to more clinical vocabulary. Competing workload priorities also impacted on the capacity of the project officer to support the recruitment efforts of the champion. It was not surprising, given these unforeseen programmatic circumstances, that the campaign effectively collapsed and there were no participants recruited from Case C locations.

However, despite participant numbers being low across the target communities, 58% of women were recruited from previously under-screened populations, with 12% never previously screened and the remaining participants all outside of the recommended re-screening time.

## Discussion

This program has provided the opportunity to test a recruitment model to disadvantaged rural women and encourage breast health behaviour change. Case A demonstrated the strength of the initial recruitment strategies in the context that these were rigorously and consistently applied which contributed to successful demand creation and subsequent recruitment. Where any of these elements was not fully

addressed, outcomes were adversely affected as demonstrated in Case B, where reduced capacity for recruitment support directly impacted the number of participants and Case C, where failure to identify a champion, together with the collapse of the media program, resulted in no demand.

The findings from this program provide guidance to agencies seeking to work in rural locations with under-served populations. Community development approaches, focusing on the formation of partnerships and the use of empowerment-based approaches have been long established as an effective basis for planning and implementing of individual and group health behaviour change initiatives [9,10]. Furthermore, there is increasing evidence to suggest that peer-led approaches are also effective for changing health behaviours in this context [7].

The concept of using the 'social learning theory' to promote social responsibility to encourage and recruit women from rural areas is an approach to be further explored in relation to breast cancer screening. Evidence suggests that recruiting women from an existing group with common characteristics, where relationships are already established, provides for an opportunistic peer-led recruitment drive process into screening programs such as this. Not only does this provide an environment conducive to the giving and receiving health messages, but also modelling and imitation of health behaviour [7].

Furthermore, with evidence suggesting that reduced numbers of rural women in breast screening programs may be linked to a reduction in GP referrals, localised recruitment programs with a community

development and peer-led focus are needed to increase awareness and empower rural women to adopt positive breast screening practices [6].

## Implications

The evidence identifying the barriers to health screening faced by rural women is well established and, together with the outcomes of this study, we suggest that without an intervention such as this, it is unlikely these women would have been screened at the recommended time [4].

The BSP experience has also demonstrated a clear need to strengthen the capacity of regional coordination and local service organisations to recruit hard-to-reach rural women for breast cancer screening. This includes: addressing management policy and priority development to support population level screening; training for health service agency staff in the identification and support of local champions; and training of staff in the effective use of media.

## Conclusion

A clearly articulated and funded rural strategy for breast cancer detection is critical to the maintenance of breast health for rural women. Independent of access in metropolitan areas, maintaining resources for recruiting under-screened rural and remote women is crucial. Research about the effectiveness and sustainability of population-based breast screening programs should continue, but should also include a clear, specific and stand-alone rural focus.

## Conflict of Interest

None declared.

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